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Serial No. 10/728,292  
60246-280; 10799

AMENDMENT

IN THE CLAIMS:

1. (CURRENTLY AMENDED) A vapor compression system comprising:
  - a compression device to compress a refrigerant to a high pressure;
  - a heat rejecting heat exchanger for cooling the refrigerant, wherein water absorbs heat from the refrigerant flowing through said heat rejecting heat exchanger;
  - an expansion device for reducing the refrigerant to a low pressure;
  - a heat accepting heat exchanger for evaporating the refrigerant; and
  - an auxiliary heater that selectively heats at least one of the refrigerant and the water,  
wherein said auxiliary heater is only active when the vapor compression system is in operation.
- 2-8. (CANCELLED)
9. (PREVIOUSLY PRESENTED) A vapor compression system comprising:
  - a compression device to compress a refrigerant to a high pressure, wherein said compression device includes a compressor discharge;
  - a heat rejecting heat exchanger for cooling the refrigerant, wherein water absorbs heat from the refrigerant flowing through said heat rejecting heat exchanger;
  - an expansion device for reducing the refrigerant to a low pressure;
  - a heat accepting heat exchanger for evaporating the refrigerant; and
  - an auxiliary heater that selectively heats at least one of the refrigerant and the water, wherein said auxiliary heater heats the refrigerant that exits said compressor through said compressor discharge before the refrigerant enters said heat rejecting heat exchanger.
10. (ORIGINAL) The vapor compression system as recited in claim 9 including an ambient temperature sensor that detects a temperature of outdoor air.

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11. (PREVIOUSLY PRESENTED) The vapor compression system as recited in claim 10 further including a control, wherein said control activates said auxiliary heater when said ambient temperature sensor detects that said temperature of said outdoor air is below a threshold value.

12. (PREVIOUSLY PRESENTED) A vapor compression system comprising:

a compression device to compress a refrigerant to a high pressure, wherein said compression device includes a compressor discharge;

a heat rejecting heat exchanger for cooling the refrigerant;

an expansion device for reducing the refrigerant to a low pressure;

a heat accepting heat exchanger for evaporating the refrigerant;

an auxiliary heater that selectively heats the refrigerant, wherein said auxiliary heater heats said refrigerant that exits said compression device through said compressor discharge;

an ambient temperature sensor that detects a temperature of outdoor air;

a control that activates said auxiliary heater when said ambient temperature sensor detects that said temperature of said outdoor air is below a threshold value; and

a defrost sensor that detects a defrosting condition of said heat accepting heat exchanger, wherein said control activates said auxiliary heater when said defrost sensor detects said defrosting condition.

13. (CURRENTLY AMENDED) The vapor compression system as recited in claim ~~1~~9 wherein said auxiliary heater is an electric heater.

14. (CURRENTLY AMENDED) The vapor compression system as recited in claim ~~1~~9 wherein the refrigerant is carbon dioxide.

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15. (CURRENTLY AMENDED) A method of increasing heating capacity of a transcritical vapor compression system including an auxiliary heater, the method comprising the steps of:

compressing a refrigerant to a high pressure with a compression device;

rejecting heat from the refrigerant into water;

expanding the refrigerant to a low pressure;

evaporating the refrigerant; and

activating the auxiliary heater to selectively further heat at least one of the water and the refrigerant with the auxiliary heater, wherein the step of activating the auxiliary heater includes activating the auxiliary heater when the vapor compression system is active.

16. (CANCELLED)

17. (PREVIOUSLY PRESENTED) A method of increasing heating capacity of a transcritical vapor compression system including an auxiliary heater, the method comprising the steps of:

compressing a refrigerant to a high pressure with a compression device;

rejecting heat from the refrigerant into water;

expanding the refrigerant to a low pressure;

evaporating the refrigerant; and

activating the auxiliary heater to selectively further heat at least one of the water and the refrigerant with the auxiliary heater by directly heating the refrigerant after the step of compressing and before the step of rejecting heat.

18. (CANCELLED)

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19. (CURRENTLY AMENDED) A method of increasing heating capacity of a transcritical vapor compression system including an auxiliary heater, the method comprising the steps of:

compressing a refrigerant to a high pressure with a compression device;

rejecting heat from the refrigerant into water;

expanding the refrigerant to a low pressure;

evaporating the refrigerant;

activating the auxiliary heater to selectively further heat at least one of the water and the refrigerant with the auxiliary heater; and

The method as recited in claim 15 further including the step of detecting a temperature of outdoor air, wherein the step of activating said auxiliary heater includes activating said auxiliary heater when said temperature is below a threshold value.

20-21. (CANCELLED)

22. (CURRENTLY AMENDED) A vapor compression system comprising:

a compression device to compress a refrigerant to a high pressure;

a heat rejecting heat exchanger for cooling the refrigerant, wherein water absorbs heat from the refrigerant flowing through said heat rejecting heat exchanger;

an expansion device for reducing the refrigerant to a low pressure;

a heat accepting heat exchanger for evaporating the refrigerant; and

an auxiliary heater that selectively heats at least one of the refrigerant and the water. ~~The vapor compression system as recited in claim 1 wherein said auxiliary heater is inactive when said compression device is inactive.~~

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23. (CURRENTLY AMENDED) A method of increasing heating capacity of a transcritical vapor compression system including an auxiliary heater, the method comprising the steps of:

compressing a refrigerant to a high pressure with a compression device;

rejecting heat from the refrigerant into water;

expanding the refrigerant to a low pressure;

evaporating the refrigerant;

activating the auxiliary heater to selectively further heat at least one of the water and the refrigerant with the auxiliary heater; and

The method as recited in claim 15 further including the step of inactivating the auxiliary heater occurs when the compression device is inactive.

24. (CURRENTLY AMENDED) The vapor compression system as recited in claim ~~1-9~~ wherein the refrigerant that is selectively heated transfers heat to the water when the refrigerant flows through the heat rejecting heat exchanger.

25. (CURRENTLY AMENDED) The method as recited in claim ~~15-17~~ further including the step of transferring heat from the refrigerant that is selectively heated to the water during the step rejecting heat from the refrigerant to the water.